

CLAIMS:

Sub a<sup>2</sup> 1. A composition comprising a first polynucleotide that hybridizes to a second, Bcl-2-encoding polynucleotide under intracellular conditions and a neutral lipid associated with said first polynucleotide, and wherein said composition contains no cationic lipid.

5 2. The composition of claim 1, wherein said first polynucleotide is an oligonucleotide having a length of between about 8 and about 50 bases.

3. The composition of claim 1, wherein the first polynucleotide is complementary to the translation initiation site of Bcl-2 mRNA.

4. The composition of claim 3, wherein the polynucleotide is an oligonucleotide comprising the sequence CAGCGTGCGCCATCCTTC (SEQ ID NO:1).

Sub a<sup>3</sup> 5. The composition of claim 1, comprising a liposome formed from the lipid.

6. The composition of claim 5, wherein the first polynucleotide is encapsulated in the liposome.

7. The composition of claim 1, wherein the lipid is a phosphatidylcholine, a phosphatidylglycerol, or a phosphatidylethanolamine.

8. The composition of claim 7, wherein the lipid is dioleoylphosphatidylcholine.

9. A composition comprising an expression construct that encodes a first polynucleotide that hybridizes to a second, Bcl-2-encoding polynucleotide under intracellular conditions, wherein said first polynucleotide is under the control of a promoter that is active in eukaryotic cells, and wherein said construct is associated with a neutral lipid, and further wherein said composition contains no cationic lipid.

20 10. A method of inhibiting a Bcl-2-associated disease comprising obtaining a first polynucleotide that hybridizes to a second, Bcl-2-encoding polynucleotide under intracellular conditions, mixing the first polynucleotide with a neutral lipid to form a polynucleotide/lipid association, and administering said association to a cell, wherein said cell expresses both Bcl-2 and Bax.

